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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,175	09/27/2001	Linda S. Thomashow	0229.99	3943

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USDA-ARS-OFFICE OF TECHNOLOGY TRANSFER
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EXAMINER

PATTERSON, CHARLES L JR

ART UNIT PAPER NUMBER

1652

DATE MAILED: 07/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,175

Applicant(s)

THOMASHOW ET AL.

Examiner

Charles L. Patterson, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001 and 16 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 10 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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Applicant's election without traverse of Group I, claims 1-7 and 10 in Paper No. 9 is acknowledged.

Claims 8 and 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9.

Applicants have listed the claims without amendment on page 2 of Paper No. 9, simply adding the words "original" or "withdrawn", and state that this was done because of a symposium given by Steven G. Kunin who stated that "the Final rule regarding Revised Amendment Practice will probably require this". While the examiner is unaware of any such requirement, 37 CFR 1.52(b)(2)(i) requires that amendments to the specification and claims have 1½ or double spacing and the submitted claims are single spaced. Applicants must resubmit all pending claims with the correct spacing in reply to this action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The instant claim requires the presence of a particular strain of organism, namely plasmid pUCP2.9XP and pGEM-PHZO. It is not clear that all of the requirements of 37 CFR 1.801-

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1.809 as to deposit conditions and availability upon issuance of a U.S. patent have been met. There is an indication that the strain has been deposited under the terms of the Budapest Treaty. However, as stated in MPEP 2410.01, "the mere indication that a deposit has been made under conditions prescribed by the Budapest Treaty would satisfy all conditions of these regulations except the requirement that all restrictions on access be removed on grant of the patent. *Ex parte Hildebrand*, 15 USPQ2d 1662 (Bd. Pat. App. & Int. 1990)". This assurance may be made by an averment by applicants' attorney.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-7 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ligon, et al. (A). The instant reference teaches in column 34, lines 56-60 that "[t]he shortest deletion derivative which was found to confer biosynthesis of all three phenazine compounds to *E. coli* contained an insert of approximately 6

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kb and was designated pLSP18-6H3del3". In column 35, lines 1-11, it is taught that pLSP18-6H3del3 contains four ORFs and that ORF4 is SEQ ID NO:22. The brief description of the sequences in columns 5-6 discloses that SEQ ID NO:21 is the DNA sequence encoding the phz4 gene. The sequence search attached to the end of the reference discloses that SEQ ID NO:1 from residues 5-146 is 100% identical with SEQ ID NO:21 of the instant reference. Therefore, the instant reference would appear to meet the requirements of (e) of claim 1 that it is "a nucleic acid which hybridizes under medium or high stringency conditions with the nucleotide sequence of SEQ ID NO:1 from nucleotide 89 through nucleotide 1564...[and] encodes a polypeptide having PhzO activity. Because it is not entirely clear whether this claim meets this requirement this rejection is being done under 35 USC 102/103. The requirements of claims 4-7 and 10 would have been obvious and well within the skill level of one of ordinary skill in the art, absent convincing proof to the contrary. It is noted that medium stringency allows many other nucleic acids to hybridize to the nucleic acid than one with 100% local identity and therefore many other references could be used to reject this claim under this limitation.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pierson, et al. (U). The instant reference teaches the location of the phenazine biosynthetic in the genome of *Pseudomonas aureofaciens*. In figure 3 it is shown that plasmids pLSP18-6 and pLSP18-6H3del3 both produce 2-hydroxyphenazine, which is the definition in the instant specification of "PhzO activity". The instant claim is not drawn to any particular sequence encoding PhzO activity but simply to "transforming a host with one or more nucleic acid molecules that encode a polypeptide having PhzO activity". It would

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have been obvious to one of ordinary skill in the art to produce a polypeptide having PhzO activity by transforming either of these plasmids into a host cell and grow the host cell, given the general knowledge concerning cloning of nucleic acids and making host cells, absent unexpected results.

A copy of reference U is not being sent because it was mentioned in the instant specification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 703-308-1834. The examiner can normally be reached on Monday - Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy can be reached on 703-308-3804. The fax phone number is 703-308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Charles L. Patterson, Jr.
Primary Examiner
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Patterson
July 24, 2003